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FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	ATTY. DOCKET NO. 9138-0060 APPLICANT Doak, et al. FILING DATE June 22, 2001	AUG 6 2002 TECHNOLOGY CENTER 2800 GROUP 1621 AUG 26 2002 TC 1700
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U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
						YES NO

OTHER DOCUMENTS (Including Author, Title, Date Pertinent Pages, Etc.)

pt	1.	J. W. Orton, C. T. Foxton, "Group III nitride semiconductors for short wavelength light-emitting devices" <i>Reports on Progress in Physics</i> 61, 1 1-75 (1998)
pt	2.	A. Sellidj, B. A. Ferguson, T. J. Mattord, B. G. Streetman, C. B. Mullins, "Growth of GaN on sapphire (0001) using a supersonic jet of plasma-generated atomic nitrogen" <i>Applied Physics Letters</i> 68, 23 3314-3316 (1996)
pt	3.	S. E. Hooper, C. T. Foxton, T. S. Cheng, L. C. Jenkins, D. E. Lacklison, J. W. Orton, T. Bestwock, A. Kean, M. Dawson, G. Duggan, "Some aspects of GaN growth on GaAs (100) substrates using molecular beam epitaxy with an RF activated nitrogen-plasma source" <i>Journal of Crystal Growth</i> 155, 157-163 (1995)
pt	4.	W. C. Hughes, W. H. Rowland Jr., M. A. L. Johnson, S. Fujita, J. W. Cook Jr., J. F. Schetzina, "Molecular beam epitaxy growth and properties of GaN films on GaN/SiC substrates" <i>Journal of Vacuum Science & Technology B</i> 13, 4 1571-1577 (1995)
pt	5.	T. D. Moustakas, "Epitaxial growth of GaN films produced by ECR-assisted MBE" <i>Materials Research Society Symposium Proceedings</i> 395 111-122 (1995)
pt	6.	A. Anders, N. Newman, M. Rubin, M. Dickinson, E. Jones, P. Phatak, A. Gassmann "Hollow-anode plasma source for molecular beam epitaxy of gallium nitride" <i>Review of Scientific Instruments</i> 67, 3 905-907 (1996)

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PL 7. M. X. Gappaa, A. E. Kull, K. Schwender, H. Lee, S. J. Harris Jr., and J. Mroczkowski "Arcjet plasma enhanced vapor phase epitaxy of GaN" *Materials Letters* 31 161-164 (1997) ✓

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PL 9. P.C. Engelking, "Corona excited supersonic expansion" *Review of Scientific Instruments* 57, 9 3375-2277 (1986)

PL 10. D. Neuerschafer, Ch. Ottiger, A. Sharma "Observation of a long-lived nitrogen beam afterglow and lifetime measurements on the N₂ (w³Δ_u) state" *Chemical Physics* 117 133-148 (1987)

PL 11. J. Q. Searcy, "A supersonic molecular beam metastable atom source initiated by direct discharge" *Review of Scientific Instruments* 45, 4 589-590 (1974)

PL 12. E. L. Leasure, G. R. Mueller, T. Y. Ridley, "Hot, metastable atom, molecular beam source" *Review of Scientific Instruments* 46, 5 635-637 (1975)

PL 13. D. W. Fahey, L. D. Schearer, W. F. Parks, "High-flux beam source of fast neutral helium" *Review of Scientific Instruments* 49, 4 503-506 (1978)

PL 14. D. W. Fahey, W. F. Parks, L. D. Schearer, "High flux beam source of thermal rare-gas metastable atoms" *Journal of Physics E Scientific Instruments* 13, 381-383 (1980)

PL 15. P. C. Engelking "Spectroscopy of jet-cooled ions and radicals" *Chemical Reviews* 91, 3 399-414 (1991)

PL 16. K. R. Comer, S. C. Foster, "Infrared spectroscopy of the products of a corona-excited supersonic expansion" *Chemical Physics Letters* 202, 3,4, 216-220 (1993)

PL 17. K. P. Huger, M. Vervloet, "High resolution fourier transform spectroscopy of supersonic jets" *Journal of Molecular Spectroscopy* 153, 1,2 17-25 (1992)

PL 18. I. Hadj Bachir, T. R. Huet, J. L. Destombes, M. Vervloet, "Laser optogalvanic spectroscopy of N₂ from the A³Σ_u⁺ metastable state in a corona excited supersonic expansion" *Chemical Physics Letters* 270, 5,6 533-537 (1997)

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PL 20. A. Lofthus, P. H. Krupenie "The spectrum of molecular nitrogen" *Journal of Physics Chem. Ref. Data* 6, 1 113-139 (1977)

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PL 22. P. C. Cosby "Electron-impact dissociation of nitrogen" *Journal of Chemical Physics* 98, 12 9544-9553 (1993)

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PL 24. J. A. Meyer, D. W. Setser, D. H. Stedman "Energy transfer reactions of N₂ (A³Σ_u⁺). II. Quenching and emission by oxygen and nitrogen atoms" *Journal of Physical Chemistry* 74, 10 2238-2240 (1970)

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pt	25.	D. C. Cartwright "Electron impact excitation of the electronic states of N ₂ . II. Integral cross sections at incident energies from 10 to 50 eV ⁺ " <i>Physical Review A General Physics</i> 16, 3 1041-1051 (1977)
pt	26.	H.-Joachim Werner, J. Kalcher, E.-Albrecht Reinsch "Accurate <i>ab initio</i> calculations of radiative transition probabilities between the A ³ Σ _u ⁺ , B ³ Π _g , W ³ Δ _u , B' ³ Π _u , and C ³ Π _u states of N ₂ " <i>Journal of Chemical Physics</i> 81, 5 2420-2431 (1984)
pt	27.	W. Benesch "Oscillator strengths for the W ³ Δ _u -X ¹ Σ _g ⁺ band system of molecular nitrogen" <i>Physical Review A General Physics</i> 19, 2 445-451 (1979)
pt	28.	D. C. Jordan, I. S. T. Tsong, D. J. Smith, B. J. Wilkens, R. B. Doak, "III-N semiconductor growth with activated nitrogen: State-specific study of A ³ Σ _u ⁺ metastable N ₂ molecules" <i>Applied Physics Letters</i> 77, 19 3030-3032 (2000)
pt	29.	D. C. Jordan, C. T. Burns, R. B. Doak "Corona discharge supersonic free-jet for III-V nitride growth via A ³ Σ _u ⁺ metastable nitrogen molecules" <i>Journal of Applied Physics</i> 89, 2 883-892 (2001)
pt	30.	V. M. Torres, D. C. Jordan, I. S. T. Tsong, R. B. Doak, "Supersonic Beam Epitaxy of Wide Bandgap Semiconductors" <i>Atomic and Molecular Beams: The state of the art 2000</i> /Roger Compagnie (ed.) Springer-Verlag Berlin Heidelberg New York 945-958
pt	31.	D. C. Jordan, "A Corona Discharge Source for the Growth of III-V Nitrides" <i>PTD Diss.</i> 12/99

EXAMINER

P. Harrangadi

DATE 9-12-02
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EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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